AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) A substrate holding apparatus for holding a substrate to be polished and pressing the substrate against a polishing surface, said substrate holding apparatus comprising:

a top ring body for holding a substrate;

an elastic pad for being brought into contact with the substrate;

a support member for supporting said elastic pad;

a contact member mounted on a lower surface of said support member and disposed in a space formed by said elastic pad and said support member, said contact member having an elastic membrane for being brought into contact with said elastic pad;

a first pressure chamber defined in said contact member;

a second pressure chamber defined outside of said contact member;

a fluid source for independently supplying a fluid into, or creating a vacuum in, said first pressure chamber and said second pressure chamber; and

a retainer ring, fixed to or integrally formed with said top ring body, for holding a peripheral portion of the substrate, said retainer ring defining a central opening and having a through hole extending through said retainer ring from an outer surface to an inner surface of said retainer ring.

2. (Previously presented) A substrate holding apparatus for holding a substrate to be polished and pressing the substrate against a polishing surface, said substrate holding apparatus comprising:

a top ring body for holding a substrate;

an elastic pad for being brought into contact with the substrate;

a support member for supporting said elastic pad;

a contact member mounted on a lower surface of said support member and disposed in a space formed by said elastic pad and said support member, said contact member having an elastic membrane for being brought into contact with said elastic pad;

a first pressure chamber defined in said contact member;

a second pressure chamber defined outside of said contact member; and

a fluid source for independently supplying a fluid, controlled in terms of temperature, into said first pressure chamber and said second pressure chamber, respectively.

3. (Previously presented) The substrate holding apparatus according to claim 1, wherein said contact member includes a holding member for detachably holding said elastic membrane.

4. (Previously presented) The substrate holding apparatus according to claim 3, wherein said holding member is detachably mounted on said support member.

5. (Previously presented) The substrate holding apparatus according to claim 1, wherein said contact member includes a central contact member disposed at a position corresponding to a central portion of the substrate when held by said top ring body, and an outer contact member disposed outside of said central contact member.

6. (Previously presented) The substrate holding apparatus according to claim 5, wherein said outer contact member is disposed at a position corresponding to an outer peripheral portion of the substrate when held by said top ring body.

Claim 7 (Cancelled)

8. (Previously presented) A substrate holding apparatus for holding a substrate to be polished and pressing the substrate against a polishing surface, said substrate holding apparatus comprising:

a top ring body for holding a substrate;

an elastic pad for being brought into contact with the substrate;

a support member for supporting said elastic pad;

a contact member mounted on a lower surface of said support member and disposed in a space formed by said elastic pad and said support member, said contact member having an elastic membrane for being brought into contact with said elastic pad;

a first pressure chamber defined in said contact member;

a second pressure chamber defined outside of said contact member;

a fluid source for independently supplying a fluid into, or creating a vacuum in, said first pressure chamber and said second pressure chamber; and

a retainer ring, fixed to or integrally formed with said top ring body, for holding a peripheral portion of the substrate,

wherein said top ring body includes a cleaning liquid passage defined therein for supplying a cleaning liquid into a gap defined between an outer circumferential surface of said elastic pad and said retainer ring.

9. (Previously presented) A substrate holding apparatus for holding a substrate to be polished and pressing the substrate against a polishing surface, said substrate holding apparatus comprising:

a top ring body for holding a substrate;

an elastic pad for being brought into contact with said substrate;

a support member for supporting said elastic pad;

a contact member mounted on a lower surface of said support member and disposed in a space formed by said elastic pad and said support member, said contact member having an elastic membrane for being brought into contact with said elastic pad;

a first pressure chamber defined in said contact member;

a second pressure chamber defined outside of said contact member;

a fluid source for independently supplying a fluid into, or creating a vacuum in, said first pressure chamber and said second pressure chamber; and

a retainer ring, fixed to or integrally formed with said top ring body, for holding a peripheral portion of the substrate,

wherein said retainer ring is fixed to or integrally formed with said top ring body without interposing an elastic member between said retainer ring and said top ring body.

10. (Previously presented) A substrate holding apparatus for holding a substrate to be polished and pressing the substrate against a polishing surface, said substrate holding apparatus comprising:

a top ring body for holding a substrate;

an elastic pad for being brought into contact with the substrate;

a support member for supporting said elastic pad;

a contact member mounted on a lower surface of said support member and disposed in a space formed by said elastic pad and said support member, said contact member having an elastic membrane for being brought into contact with said elastic pad;

a first pressure chamber defined in said contact member;

a second pressure chamber defined outside of said contact member; and

a fluid source for independently supplying a fluid into, or creating a vacuum in, said first pressure chamber and said second pressure chamber,

wherein said elastic membrane has differing thicknesses.

11. (Previously presented) A substrate holding apparatus for holding a substrate to be polished and pressing the substrate against a polishing surface, said substrate holding apparatus comprising:

a top ring body for holding a substrate;

an elastic pad for being brought into contact with the substrate;

a support member for supporting said elastic pad;

a contact member mounted on a lower surface of said support member and disposed in a space formed by said elastic pad and said support member, said contact member having an elastic membrane for being brought into contact with said elastic pad;

a first pressure chamber defined in said contact member;

a second pressure chamber defined outside of said contact member; and

a fluid source for independently supplying a fluid into, or creating a vacuum in, said first pressure chamber and said second pressure chamber,

wherein said elastic membrane partially includes an inelastic member.

12. (Previously presented) The substrate holding apparatus according to claim 1, wherein said support member is made of an insulating material.

Claims 13-27 (Cancelled)

28. (Currently Amended) A substrate holding apparatus for holding a substrate to be polished and pressing the substrate against a polishing surface, said substrate holding apparatus comprising:

a top ring body for holding a substrate;

a support member having a contact member mounted on a lower surface thereof, said contact member being disposed in a space formed by the substrate, when held by said top ring body, and said support member, and said contact member having an elastic membrane for being brought into contact with the substrate;

a first pressure chamber defined in said contact member;

a second pressure chamber defined outside of said contact member;

a fluid source for independently supplying a fluid into, or creating a vacuum in, said first pressure chamber and said second pressure chamber; and

a retainer ring, fixed to or integrally formed with said top ring body, for holding a peripheral portion of the substrate, said retainer ring defining a central opening and having a through hole extending through said retainer ring from an outer surface to an inner surface of said retainer ring.

29. (Previously presented) A substrate holding apparatus for holding a substrate to be polished and pressing the substrate against a polishing surface, said substrate holding apparatus comprising:

a top ring body for holding a substrate;

a support member having a contact member mounted on a lower surface thereof, said contact member being disposed in a space formed by the substrate, when held by said top ring body, and said support member, and said contact member having an elastic membrane for being brought into contact with the substrate;

a first pressure chamber defined in said contact member;

a second pressure chamber defined outside of said contact member; and

a fluid source for independently supplying a fluid, controlled in terms of temperature, into said first pressure chamber and said second pressure chamber, respectively.

30. (Previously presented) The substrate holding apparatus according to claim 28, further comprising:

a communicating portion, for allowing the fluid supplied into said first pressure chamber to contact a contact surface of the substrate, in a lower surface of said elastic membrane.

31. (Previously presented) The substrate holding apparatus according to claim 28, wherein said contact member includes a holding member for detachably holding said elastic membrane.

32. (Previously presented) The substrate holding apparatus according to claim 31, wherein said holding member is detachably mounted on said support member.

33. (Previously presented) The substrate holding apparatus according to claim 28, further comprising:

a protrusion, radially extending from a circumferential edge of said elastic membrane, on a lower surface of said elastic membrane.

34. (Previously presented) The substrate holding apparatus according to claim 28, wherein said contact member includes a central contact member disposed at a position corresponding to a central portion of the substrate when held by said top ring body, and an outer contact member disposed outside of said central contact member.

35. (Previously presented) The substrate holding apparatus according to claim 34, wherein said outer contact member is disposed at a position corresponding to an outer peripheral portion of the substrate when held by said top ring body.

Claim 36 (Cancelled)

37. (Previously presented) A substrate holding apparatus for holding a substrate to be polished and pressing the substrate against a polishing surface, said substrate holding apparatus comprising:

a top ring body for holding a substrate;

a support member having a contact member mounted on a lower surface thereof, said contact member being disposed in a space formed by the substrate, when held by said top ring body, and said support member, and said contact member having an elastic membrane for being brought into contact with the substrate;

a first pressure chamber defined in said contact member;

a second pressure chamber defined outside of said contact member;

a fluid source for independently supplying a fluid into, or creating a vacuum in, said first pressure chamber and said second pressure chamber; and

a retainer ring, fixed to or integrally formed with said top ring body, for holding a peripheral portion of the substrate,

wherein said top ring body includes a cleaning liquid passage defined therein for supplying a cleaning liquid into a gap defined between an outer circumferential surface of the substrate, when held by said top ring body, and said retainer ring.

38. (Previously presented) A substrate holding apparatus for holding a substrate to be polished and pressing the substrate against a polishing surface, said substrate holding apparatus comprising:

a top ring body for holding a substrate;

a support member having a contact member mounted on a lower surface thereof, said contact member being disposed in a space formed by the substrate, when held by said top ring body, and said support member, and said contact member having an elastic membrane for being brought into contact with the substrate;

a first pressure chamber defined in said contact member;

a second pressure chamber defined outside of said contact member;

a fluid source for independently supplying a fluid into, or creating a vacuum in, said first pressure chamber and said second pressure chamber; and

a retainer ring, fixed to or integrally formed with said top ring body, for holding a peripheral portion of the substrate,

wherein said retainer ring is fixed to or integrally formed with said top ring body without interposing an elastic member between said retainer ring and said top ring body.

39. (Previously presented) A substrate holding apparatus for holding a substrate to be polished and pressing the substrate against a polishing surface, said substrate holding apparatus comprising:

a top ring body for holding a substrate;

a support member having a contact member mounted on a lower surface thereof, said contact member being disposed in a space formed by the substrate, when held by said top ring body, and said support member, and said contact member having an elastic membrane for being brought into contact with the substrate;

a first pressure chamber defined in said contact member;

a second pressure chamber defined outside of said contact member; and

a fluid source for independently supplying a fluid into, or creating a vacuum in, said first pressure chamber and said second pressure chamber,

wherein said elastic membrane differing thicknesses.

40. (Previously presented) A substrate holding apparatus for holding a substrate to be polished and pressing the substrate against a polishing surface, said substrate holding apparatus comprising:

a top ring body for holding a substrate;

a support member having a contact member mounted on a lower surface thereof, said contact member being disposed in a space formed by the substrate, when held by said top ring body, and said support member, and said contact member having an elastic membrane for being brought into contact with the substrate;

a first pressure chamber defined in said contact member;

a second pressure chamber defined outside of said contact member; and

a fluid source for independently supplying a fluid into, or creating a vacuum in, said first pressure chamber and said second pressure chamber,

wherein said elastic membrane partially includes an inelastic member.

41. (Previously presented) The substrate holding apparatus according to claim 28, wherein said support member is made of an insulating material.

42. (Currently Amended) A substrate holding apparatus for holding a substrate to be polished and pressing the substrate against a polishing surface, said substrate holding apparatus comprising:

a top ring body for holding a substrate;

an elastic pad for being brought into contact with the substrate;

a support member for supporting said elastic pad;

contact members mounted on a lower surface of said support member, said contact members each having an elastic membrane for being brought into contact with said elastic pad and being independently pressed against said elastic pad; and

a retainer ring, fixed to or integrally formed with said top ring body, for holding a peripheral portion of said substrate, said retainer ring defining a central opening and having a through hole extending through said retainer ring <u>from an outer surface to an inner surface of said retainer ring</u>.

43. (Previously presented) The substrate holding apparatus according to claim 42, wherein said contact members are spaced from one another at a predetermined interval.

44. (Previously presented) A substrate holding apparatus for holding a substrate to be polished and pressing the substrate against a polishing surface, said substrate holding apparatus comprising:

a top ring body for holding a substrate;

an elastic pad for being brought into contact with the substrate;

a support member for supporting said elastic pad;

contact members mounted on a lower surface of said support member, said contact members each having an elastic membrane for being brought into contact with said elastic pad and independently pressed against said elastic pad;

a first pressure chamber;

a second pressure chamber; and

a fluid source for independently supplying a fluid, controlled in terms of temperature, into said first pressure chamber and said second pressure chamber, respectively.

45. (Previously presented) A substrate holding apparatus for holding a substrate to be polished and pressing the substrate against a polishing surface, said substrate holding apparatus comprising:

a top ring body for holding a substrate;

a support member;

contact members mounted on a lower surface of said support member, said contact members each having an elastic membrane for being brought into contact with the substrate and independently pressed against the substrate;

a first pressure chamber;

a second pressure chamber; and

a fluid source for independently supplying a fluid into, or creating a vacuum in, said first pressure chamber and said second pressure chamber; and

a communicating portion, for allowing the fluid supplied into said first pressure chamber to contact a contact surface of the substrate, in a lower surface of said elastic membrane of at least one of said contact members.

46. (Previously presented) The substrate holding apparatus according to claim 42, wherein at least one of said contact members includes a holding member for detachably holding said elastic membrane of said at least one of said contact members.

47. (Previously presented) The substrate holding apparatus according to claim 46, wherein said holding member is detachably mounted on said support member.

48. (Previously presented) A substrate holding apparatus for holding a substrate to be polished and pressing the substrate against a polishing surface, said substrate holding apparatus comprising:

a top ring body for holding a substrate;

an elastic pad for being brought into contact with the substrate;

a support member for supporting said elastic pad;

contact members mounted on a lower surface of said support member, said contact members each having an elastic membrane for being brought into contact with said elastic pad and independently pressed against said elastic pad; and

a protrusion, radially extending from a circumferential edge of said elastic membrane of at least one of said contact members, on a lower surface of said elastic membrane.

49. (Previously presented) The substrate holding apparatus according to claim 42, wherein said contact members include a central contact member disposed at a position corresponding to a central portion of the substrate when held by said top ring body, and an outer contact member disposed outside of said central contact member.

50. (Previously presented) The substrate holding apparatus according to claim 49, wherein said outer contact member is mounted at a position corresponding to an outer peripheral portion of the substrate when held by said top ring body.

Claim 51 (Cancelled)

52. (Previously presented) A substrate holding apparatus for holding a substrate to be polished and pressing the substrate against a polishing surface, said substrate holding apparatus comprising:

a top ring body for holding a substrate;

an elastic pad for being brought into contact with the substrate;

a support member for supporting said elastic pad;

contact members mounted on a lower surface of said support member, said contact members each having an elastic membrane for being brought into contact with said elastic pad and independently pressed against said elastic pad; and

a retainer ring, fixed to or integrally formed with said top ring body, for holding a peripheral portion of the substrate,

wherein one of said contact members is a central contact member disposed at a position corresponding to a central portion of the substrate when held by said top ring body,

wherein another of said contact members is an outer contact member disposed at a position corresponding to an outer peripheral portion of the substrate when held by said top ring body, and disposed outside of said central contact member, and

wherein said top ring body includes a cleaning liquid passage defined therein for supplying a cleaning liquid into a gap defined between an outer circumferential surface of said elastic pad and said retainer ring.

53. (Previously presented) A substrate holding apparatus for holding a substrate to be polished and pressing the substrate against a polishing surface, said substrate holding apparatus comprising:

a top ring body for holding a substrate;

an elastic pad for being brought into contact with the substrate;

a support member for supporting said elastic pad;

contact members mounted on a lower surface of said support member, said contact members each having an elastic membrane for being brought into contact with said elastic pad and independently pressed against said elastic pad; and

a retainer ring, fixed to or integrally formed with, said top ring body for holding a peripheral portion of the substrate,

wherein one of said contact members is a central contact member disposed at a position corresponding to a central portion of the substrate when held by said top ring body,

wherein another of said contact members is an outer contact member disposed at a position corresponding to an outer peripheral portion of the substrate when held by said top ring body, and disposed outside of said central contact member, and

wherein said retainer ring is fixed to or integrally formed with said top ring body without interposing an elastic member between said retainer ring and said top ring body.

54. (Previously presented) A substrate holding apparatus for holding a substrate to be polished and pressing the substrate against a polishing surface, said substrate holding apparatus comprising:

a top ring body for holding a substrate;

an elastic pad for being brought into contact with the substrate;

a support member for supporting said elastic pad; and

contact members mounted on a lower surface of said support member, said contact members each having an elastic membrane for being brought into contact with said elastic pad and independently pressed against said elastic pad,

wherein said elastic membrane of at least one of said contact members has differing thicknesses.

55. (Previously presented) A substrate holding apparatus for holding a substrate to be polished and pressing the substrate against a polishing surface, said substrate holding apparatus comprising:

a top ring body for holding a substrate;

an elastic pad for being brought into contact with the substrate;

a support member for supporting said elastic pad; and

contact members mounted on a lower surface of said support member, said contact members each having an elastic membrane for being brought into contact with said elastic pad and independently pressed against said elastic pad,

wherein said elastic membrane of at least one of said contact members partially includes an inelastic member.

56. (Previously presented) The substrate holding apparatus according to claim 42, wherein said support member is made of an insulating material.

57. (Currently Amended) A polishing apparatus for polishing a substrate, comprising:

a polishing table having a polishing surface; and

a substrate holding apparatus for holding a substrate to be polished and pressing the substrate against said polishing surface, said substrate holding apparatus including:

(i) a top ring body for holding the substrate;

(ii) an elastic pad for being brought into contact with the substrate;

(iii) a support member for supporting said elastic pad;

(iv) a contact member mounted on a lower surface of said support member and disposed in a space formed by said elastic pad and said support member, said contact member having an elastic membrane for being brought into contact with said elastic pad;

(v) a first pressure chamber defined in said contact member;

(vi) a second pressure chamber defined outside of said contact member;

(vii) a fluid source for independently supplying a fluid into, or creating a vacuum in, said first pressure chamber and said second pressure chamber; and

(viii) a retainer ring, fixed to or integrally formed with said top ring body, for holding a peripheral portion of the substrate, said retainer ring defining a central opening and having a through hole extending through said retainer ring from an outer surface to an inner surface of said retainer ring.

Claim 58 (Cancelled)

59. (Currently Amended) A polishing apparatus for polishing a substrate, comprising:

a polishing table having a polishing surface; and

a substrate holding apparatus for holding a substrate to be polished and pressing the substrate against said polishing surface, said substrate holding apparatus including:

(i) a top ring body for holding the substrate;

(ii) a support member having a contact member mounted on a lower surface thereof, said contact member being disposed in a space formed by the substrate, when held by said top ring body, and said support member, and said contact member having an elastic membrane for being brought into contact with the substrate;

(iii) a first pressure chamber defined in said contact member;

(iv) a second pressure chamber defined outside of said contact member;

(v) a fluid source for independently supplying a fluid into, or creating a vacuum in, said first pressure chamber and said second pressure chamber; and

(vi) a retainer ring, fixed to or integrally formed with said top ring body, for holding a peripheral portion of the substrate, said retainer ring defining a central opening and having a through

hole extending through said retainer ring from an outer surface to an inner surface of said retainer ring.

Claims 60-62 (Cancelled)